DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-019302
Date Inspected: 15-Jan-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC)

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: Li Yang and Zhu Zhong Hai

Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG Trial Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly Areas

Segment 12BW to Segment 12CW (Root Gap and Offset)

This QA Inspector performed Dimension Control Inspection on January 10, 2011 and January 15, 2011 for measuring root gap and offset at the Transverse Splice for the Segment 12BW to Segment 12CW between Panel Point (PP) 114 to PP 115 at the following locations:

Work Point W5 towards Work Point W6 (Edge Panel Cross Beam Side).

Work Point W6 towards Work Point W4 (Side Panel Cross Beam Side).

Work Point W4 towards Work Point W3 (Bottom Panel).

Work Point W3 towards Work Point W1 (Side Panel Counter Weight Side).

Work Point W1 towards Work Point W2 (Edge Panel Counter Weight Side).

Work Point W2 towards Work Point W5 (Deck Panel).

The QA Inspector measured the root gap using 1(One) taper gauge and measured the offset using a bridge cam gauge.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Lift 11 East (Cross-brace Cable for Cable Tray's)

This QA Inspector witnessed the final tension verification for cross-brace cables for the Cable Tray structure connected diagonally by Crosby clips. The Cable Trays were installed at Bottom Panel Cross Beam and Bike Path side at following Segments and Panel Points for Lift 11 East. The QA Inspector verified the tension of cross-brace cables and observed the results appeared to be in general compliance with RFI No. ABF-RFI-001874R00 Dated August 27, 2009.

Segment 11AE- between PP 95 to PP 96; PP 96 to PP 97 and between PP 97 to PP 97.75.

Segment 11BE- between PP 99 to PP 100.

Segment 11CE- between PP 100 to PP 101; PP 101 to PP 102 and PP 102 to PP 103.

Segment 11DE- between PP 103 to PP 104.

Segment 11EE- between PP 106 to PP 107; PP 107 to PP 108 and PP 108 to PP 108.75.

The Inspection was performed against Notification No. 00612 dated January 15, 2011.

Note: Cable Tray not installed between PP 98 to PP 99 for Segment 11BE; between PP 104 to PP 105 and PP 105 to PP 106 for Segment 11DE due to interference with temporary sea fastening structures.

Note: Please reference the pictures attached for more comprehensive details.

Segment 12BW to Segment 12CW (Transverse Splice weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBW12C-001. The welder identification was 041713, 044551 and 040611 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Bottom Panel Transverse Splice weld.

Please reference the pictures attached for more comprehensive details.

Segment 12BE (Deck Panel I-Rib Stiffeners, hold back weld)
This QA Inspector observed the in process fillet welding by Shielded Metal Arc Welding (SMAW) process. The Weld joint was designated as DP3012-001-013/014. The welder identification was 040270 and observed welding in the 4F (Overhead) position using approved Welding Procedure Specification WPS-B-T-4114-1. The piece mark was identified as Deck Panel I-Rib hold back weld, Cross Beam side.

Please reference the pictures attached for more comprehensive details.

Segment 12CE (Deck Panel I-Rib Stiffeners, hold back weld)
This QA Inspector observed the in process fillet welding by Shielded Metal Arc Welding (SMAW) process. The Weld joint was designated as DP3023-001-007/008. The welder identification was 040378 and observed welding in the 4F (Overhead) position using approved Welding Procedure Specification WPS-B-T-4114-1. The piece mark was identified as Deck Panel I-Rib hold back weld, Cross Beam side.

Segment 12BE to Segment 12CE (Transverse Splice weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12A-001. The welder identification was 044515 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Side Panel Transverse Splice weld, Cross Beam side.

Please reference the pictures attached for more comprehensive details.

Segment 12BE to Segment 12CE (Transverse Splice weld)

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as OBE12A-002. The welder identification was 040320 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1. The piece mark was identified as the Side Panel Corner Assembly Transverse Splice weld, Bike Path side.

Segment 12BW (Bottom Panel to Side Panel hold back weld)

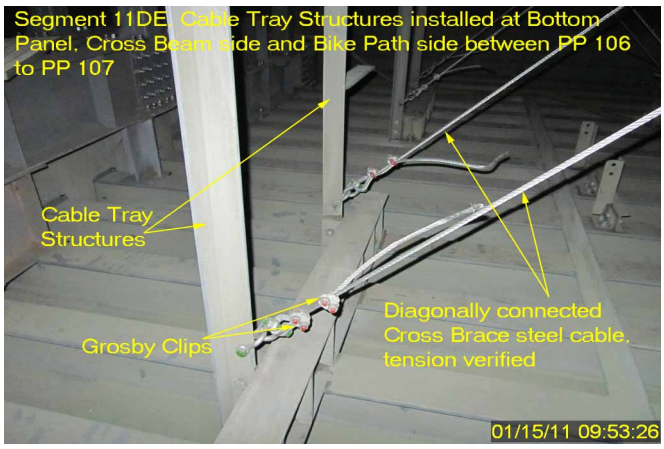
This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as Seg3005A-004. The welder identification was 046704 and was observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-B-U2-FCM-1. The piece mark was identified as weld connecting Bottom Panel to Side Panel hold back weld at work point W4.

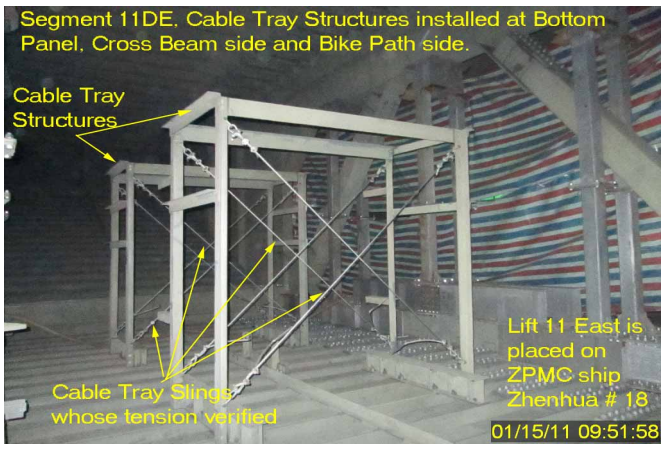
Segment 12CW (Bottom Panel to Side Panel hold back weld)

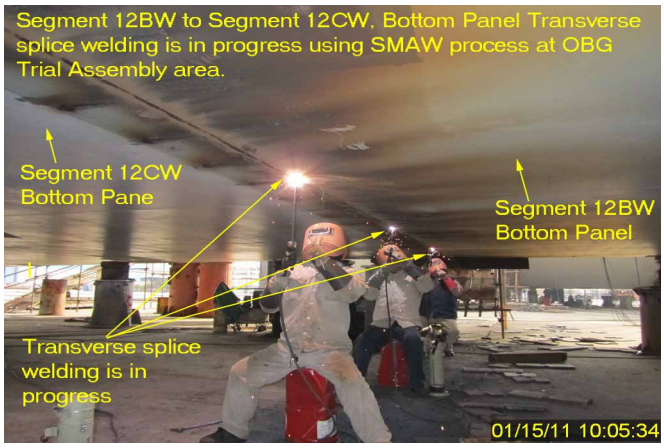
This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a

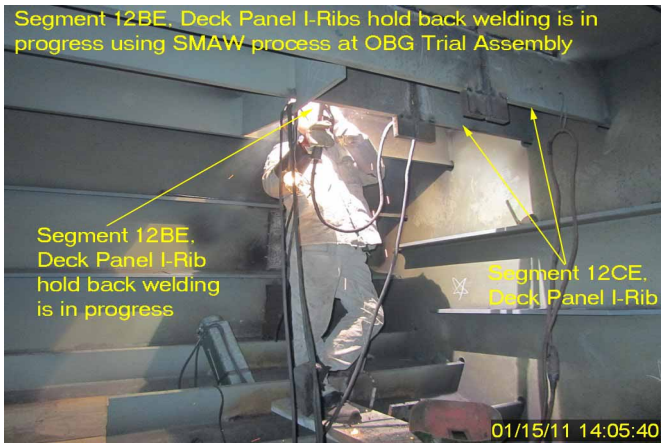
Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as Seg3006A-011. The welder identification was 046704 and was observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-B-P-2212-B-U2-FCM-1. The piece mark was identified as weld connecting Bottom Panel to Side Panel hold back weld at work point W4.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.









WELDING INSPECTION REPORT

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Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Dsouza,Christopher	QA Reviewer